Emergent Ferromagnetism: Direct Demonstration of the Emergent Magnetism Resulting from the Multivalence Mn in a LaMnO3 Epitaxial Thin Film System (Adv. Electron. Mater. 6/2018)

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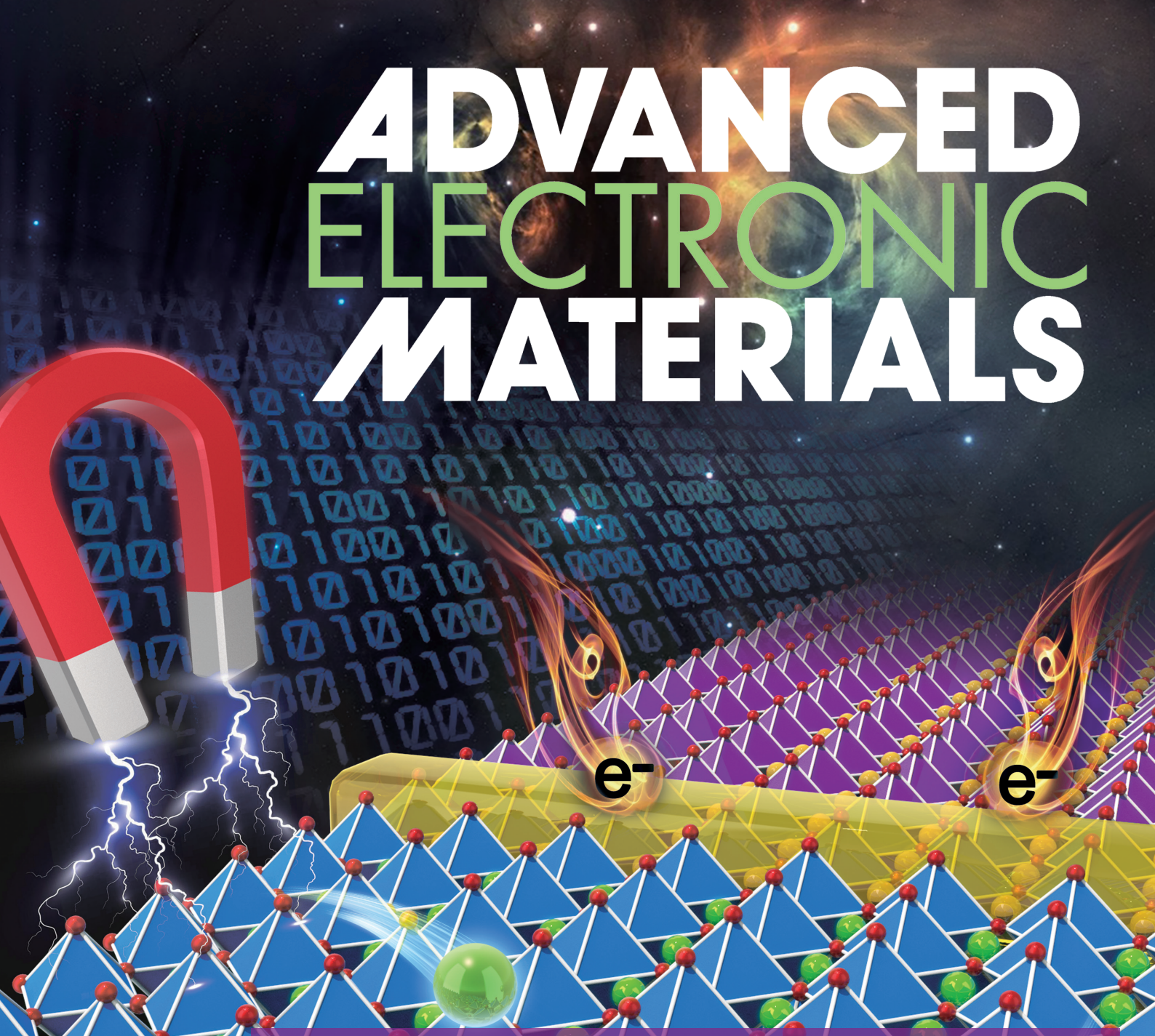
ADVANCED ELECTRONIC MATERIALS



EMERGENT FERROMAGNETISM

Emergent ferromagnetism in an otherwise antiferromagnetic $LaMnO_3$-based heterostructure attributable to the cation-vacancy-induced oxygen excess effect through direct observation of multivalence Mn is reported by Xuefeng Wang, Peng Wang, Yongbing Xu, Yunzhong Chen, and co-workers in article number 1800055. The ferromagnetism is mediated by the Mn^{3+}-O-Mn^{4+} double-exchange mechanism. It provides a hitherto unexplored multivalence state of Mn on the emergent ferromagnetism in manganite thin films.

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